

NATURAL GRAPHITE STATISTICS
By John L. Sznopce and Rustu S. Kalyoncu
[All values in metric tons (t) unless otherwise noted]
Last modification: Febuary 4, 2003

Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	3,050		14,600		17,700	95.00	1,900.00	81,600
1901	2,530		14,600		17,100	62.00	1,200.00	77,100
1902	6,090		18,500		24,600	63.00	1,200.00	81,600
1903	17,100		16,300		33,400	74.00	1,300.00	77,100
1904	17,900		12,900		30,800	70.00	1,300.00	77,100
1905	22,700		15,800		38,500	62.00	1,100.00	90,700
1906	18,000		23,100		41,100	67.00	1,200.00	104,000
1907	26,600		20,800		47,400	85.00	1,500.00	109,000
1908	2,350		10,400		12,700	73.00	1,300.00	95,300
1909	7,480		19,300		26,800	96.00	1,700.00	95,300
1910	3,810		22,900		26,700	82.00	1,400.00	95,300
1911	3,280	3,280	18,800		22,100	80.00	1,400.00	109,000
1912	3,480	3,480	23,300	2,110	24,600	74.00	1,200.00	118,000
1913	4,330	4,330	26,200	2,440	28,100	80.50	1,320.00	136,000
1914	3,930	3,930	19,900	1,780	22,100	70.10	1,140.00	104,000
1915		4,280	20,900	480	24,700	107.00	1,720.00	113,000
1916		7,340	38,900	724	45,600	187.00	2,790.00	172,000
1917		12,300	38,600	2,330	48,600	232.00	2,950.00	209,000
1918		11,800	17,700	865	28,600	175.00	1,890.00	181,000
1919		6,730	24,200	571	30,300	123.00	1,160.00	122,000
1920		8,630	19,100	551	27,200	89.40	728.00	118,000
1921		2,210	7,420	836	8,800	60.90	555.00	90,700
1922		2,840	11,300	516	13,600	41.80	406.00	104,000
1923		5,480	17,600	824	22,300	34.80	333.00	95,300
1924		4,510	14,900	927	18,400	26.90	256.00	95,300
1925		4,230	16,100	857	19,500	51.30	477.00	122,000
1926		4,960	14,700	367	19,300	62.80	579.00	136,000
1927		4,720	15,800	1,650	18,900	45.70	429.00	154,000
1928		5,090	15,900	2,000	19,000	50.30	479.00	150,000
1929		5,860	21,800	1,460	26,200	48.90	465.00	150,000
1930			15,200	1,410	13,800	41.20	402.00	118,000
1931			7,670	1,080	6,590	34.70	371.00	77,100
1932			5,770	717	5,050	26.10	312.00	72,600
1933			6,660	829	5,830	31.70	399.00	86,200
1934			12,300	1,130	11,200	39.80	485.00	109,000
1935			14,900	1,340	13,600	35.30	419.00	145,000
1936			20,400	740	19,700	27.70	326.00	150,000
1937			26,100	1,370	24,700	28.80	327.00	159,000
1938			15,000	892	14,100	24.90	288.00	177,000
1939			19,500	885	18,700	21.80	256.00	222,000
1940			28,200	1,480	26,700	31.60	368.00	254,000
1941	2,490		37,300	1,560	38,300	54.20	600.00	231,000
1942	6,460		39,700	3,720	42,400	63.00	630.00	272,000
1943	9,020		27,000	2,730	33,200	35.60	335.00	277,000
1944	4,910		23,600	2,020	26,500	53.80	498.00	263,000
1945	4,430		32,800	1,190	36,000	43.30	393.00	136,000
1946	5,060		30,100	2,100	33,000	44.20	369.00	95,300
1947	3,980		39,600	1,400	42,200	38.20	279.00	122,000
1948	9,030		47,400	950	55,400	43.20	293.00	163,000
1949	5,540		28,800	1,230	33,100	43.80	299.00	168,000
1950	4,630		39,400	1,270	42,800	52.70	357.00	159,000

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Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1951	6,470		49,300	1,360	54,500	61.00	383.00	195,000
1952	5,090		38,500	1,620	42,000	74.30	456.00	177,000
1953	5,700		46,300	1,380	50,600	60.70	370.00	168,000
1954			36,900	726	36,100	61.90	375.00	168,000
1955			44,100	1,270	42,800	54.20	330.00	272,000
1956			43,400	998	42,400	59.80	359.00	263,000
1957			37,600	1,180	36,500	56.00	324.00	372,000
1958			24,600	1,090	23,500	49.00	276.00	318,000
1959			33,600	1,270	32,300	45.50	254.00	372,000
1960			43,600	1,720	41,900	40.20	221.00	435,000
1961			26,900	1,450	25,400	49.60	270.00	413,000
1962			31,600	1,090	30,500	56.40	304.00	535,000
1963			47,000	816	46,200	42.50	226.00	679,000
1964			42,800	1,810	41,000	45.40	239.00	620,000
1965			52,700	2,900	49,800	45.30	234.00	607,000
1966			51,300	2,900	48,400	49.60	249.00	484,000
1967			51,100	3,240	47,900	45.90	224.00	358,000
1968			61,500	3,780	57,700	40.50	190.00	437,000
1969			53,000	9,310	52,600	45.63	202.90	376,000
1970			60,200	5,250	45,400	50.30	211.20	393,000
1971			52,100	5,200	54,400	52.34	210.70	394,000
1972			57,800	6,610	63,500	60.77	236.80	361,000
1973			69,900	7,220	62,600	59.17	217.10	395,000
1974			73,500	11,100	62,600	73.41	242.70	497,000
1975			58,300	9,600	50,000	92.79	281.10	451,000
1976			70,500	11,100	60,700	91.29	261.40	449,000
1977			76,500	12,500	66,900	100.60	270.60	493,000
1978			87,700	8,710	82,000	128.90	322.20	534,000
1979			75,100	7,820	70,400	168.70	379.00	626,000
1980			52,300	8,060	47,600	294.40	582.60	597,000
1981			59,600	10,300	49,300	320.50	574.60	589,000
1982			48,200	9,380	38,800	325.10	549.10	562,000
1983			39,500	8,560	31,000	301.50	493.40	604,000
1984			52,800	6,440	46,400	275.90	433.10	625,000
1985			47,800	7,580	40,300	338.30	512.80	584,000
1986			38,800	7,030	31,800	406.00	603.60	625,000
1987			43,300	11,700	31,600	407.40	584.40	643,000
1988			53,900	11,100	42,800	431.40	594.50	575,000
1989			62,300	11,500	50,900	540.90	711.30	1,010,000
1990			50,200	11,500	38,700	701.20	874.70	946,000
1991			33,500	19,400	14,200	647.80	775.20	771,000
1992			49,700	20,200	29,500	513.10	596.10	670,000
1993			52,200	17,400	34,800	572.80	646.40	648,000
1994			53,100	20,300	32,900	506.60	557.10	517,000
1995			60,700	37,300	23,500	495.90	530.40	584,000
1996			53,400	26,000	27,400	535.60	556.60	555,000
1997			58,100	39,700	18,400	557.70	566.40	685,000
1998			61,600	28,000	33,600	564.90	564.90	651,000
1999			55,800	29,400	26,400	621.90	608.50	692,000
2000			60,800	21,800	39,000	534.50	506.00	857,000

Natural Graphite Worksheet Notes

Data Sources

The sources of data for the natural graphite worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available or withheld.

Production

Production data were recorded from published values in the MR and the MYB for the years 1900–14 and 1941–53. For the years 1915–40, 1954–79, 1982–84, and 1988–89, production data were withheld. For the years 1980–81, 1985–87, and 1990–2000, production data were not available. Shipment data were reported for the years 1911–29. For the years 1911–14, shipment data were reported as being equal to production data. Shipment data were assumed to be equal to production data for the years 1915–29.

Imports

For the years 1931–80, the import numbers shown in the MYB include both artificial and natural graphite. Therefore, the import numbers listed in the spreadsheet were adjusted by subtracting the artificial graphite totals from the gross number. Import data were recorded from the published values in the MR and the MYB.

Exports

Export data for the years 1927–35 include manufactured graphite because there was no specific data available to allow separating manufactured graphite from natural graphite. Prior to 1912, export data were not available. Data were recorded from the MR and the MYB.

Apparent Consumption

For the years 1985–2000, apparent consumption was recorded as it appeared in the MYB. Prior to 1985, there were no entries, so apparent consumption was calculated using the formula:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS}.$$

Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of natural graphite apparent consumption in current dollars. Apparent consumption data were not reported for the years 1900–68 and were withheld for the years 1982–84. Production and shipment data were not available or withheld for most of the century, which prevented the calculation of apparent consumption. The unit value was based solely on imports.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

References

- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
- U.S. Geological Survey, 1904–27, Mineral Resources of the United States, 1902–23.
- U.S. Geological Survey, 1997–2002, Minerals Yearbook, v. I, 1995–2000.

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